

REMARKS

Claim 1 is amended to recite that the fluorine-containing resinous copolymer having functional group of the present invention is crosslinkable (but not yet crosslinked). Claims 2-4 are amended to add that the fluorine-containing copolymer is resinous for consistency with claim 1.

Claims 5-9 are new claims directed to a resin composition comprising a crosslinkable fluorine-containing resinous copolymer having functional group and a curing agent which is reactive with the functional group of the copolymer. The copolymer contains a hydrocarbon vinyl ether compound unit having functional group and tetrafluoroethylene unit, has a fluorine content of not less than 10% by weight and is insoluble in tetrahydrofuran substantially.

Support is found, for example, on page 8, line 2 to page 10, line 6. Hence no issues of new matter are presented herein. Upon entry of the Amendment claims 1-9 will be all of the claims pending in the application.

Entry of the amendments is respectfully requested.

Review and reconsideration on the merits are requested.

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over EP 0481478 (EP '478). The Examiner considered that because EP '478 discloses a copolymer containing a hydrocarbon vinyl ether compound unit and tetrafluoroethylene unit, a fluorine content of not less than 10% by weight and which is insoluble in tetrahydrofuran, a functional group is also inherently present. Additionally, the Examiner did not consider Applicants' remarks characterizing the product of

EP '478 as being a "crosslinked" polymer to be persuasive of patentability (as not being commensurate in scope with the claims).

EP '478 does not disclose, teach or suggest all elements of the claimed invention either explicitly or inherently, and Applicants respectfully traverse the rejection for the following reasons.

In relying upon a theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

In this case, the Examiner's understanding of the disclosure of EP '478, particularly, the Comparative Example, is mistaken. The aim of EP '478 is to stabilize a fluorocopolymer against gel formation. See, e.g., page 2, lines 3-4, and line 35, etc. Gel formation is caused by crosslinking. Page 4, line 57; page 5, lines 39-40. The presence of gel formation is determined by solubility in THF. See Comparative Example and all Examples.

The dry copolymer of EP '478 in the Comparative Example is completely insoluble in tetrahydrofuran (THF) and is a crosslinked polymer. Namely, the completion of crosslinking is determined by solubility in THF. This means that the polymerized polymer before crosslinking is determined by its solubility in THF. The crosslinked polymer does not have a cure site or functional group because the cure site is consumed during the crosslinking.

Therefore, EP '478 discloses two types of copolymers, that is, a copolymer which is soluble in THF and is not crosslinked (not gel formed), and a copolymer that is insoluble in THF

and is crosslinked (gel formed). However, there is no disclosure of a crosslinkable copolymer as required by the claims of the present invention. The copolymer of the present invention is insoluble in THF but is not yet crosslinked (not gel formed). The claimed invention differs from EP '478 in these two fundamental respects.

Further, according to EP '478, THF is simply used to determine whether a certain copolymer is crosslinked or not. In the present invention, THF is employed to determine whether a certain copolymer has solvent resistance or not. The merits of insolubility in THF according to the present invention are described in the specification on page 4, lines 3-17.

Even further, the Examiner has not explained how the Comparative Example of EP '478 anticipates or renders obvious claim 3 which requires that the copolymer further contain hexafluoropropylene unit and ethylene unit as essential components. No such copolymer is disclosed in the Comparative Example of EP '478.

Thus, in view of the above, the Examiner has not provided a basis in fact or technical reasoning to reasonably support the determination that the claimed fluorine-containing crosslinkable resinous copolymer having functional group is inherently disclosed in the prior art. In fact, no such copolymer is disclosed. Further, there is no reasonable expectation of achieving the claimed invention based upon the disclosure of EP '478. Therefore, the claimed invention cannot be said to be anticipated by or rendered obvious over EP '478.

Accordingly, Applicants respectfully request withdrawal of the rejection.

Newly added resin composition claims 5-10, recite a resin composition comprising a crosslinkable fluorine-containing resinous copolymer having functional group and a curing agent

EP '478 does not disclose, teach or suggest a crosslinkable fluorine-containing resinous copolymer having functional group as discussed above, and therefore the claimed composition is distinguished over the prior art of record for at least the same reasons.

Further, although EP '478 discloses that the stabilized copolymers are particularly useful as components of high quality coatings and finishings (page 2, lines 4-5) and that in coating applications the coating compositions are frequently applied from a solution in an organic solvent so that good solubility of such compositions and stability of the solutions are important (page 2, lines 3-17), there is no description in EP '478 as to a curing agent. Particularly, in the Comparative Example of EP '478, crosslinking is carried out without a curing agent. Thus, EP '478 does not teach or suggest the presently claimed composition.

More particularly, if a person skilled in the art does not recognize the technical merit of insolubility in THF, the effects of the present invention cannot be expected from EP '478.

In view of the above, reconsideration and allowance of this application are now believed to be in order. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

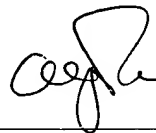
Withdraw of rejections and allowance of claims 1-9 is earnestly solicited.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 09/674,249

Attorney Docket No.: Q61520

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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